

AMENDMENTS TO THE CLAIMS

This listing replaces all prior versions and listings of claims in the application.

Listing of Claims

1. – 16. (Cancelled)

17. (New) A device for closing a hole formed in a blood vessel by a sheath for holding a catheter that has been inserted into the blood vessel, comprising:

- (A) a light-conveying element that consists essentially of one or two pairings of a generator with an optical fiber that is operationally connected thereto, wherein (i) each generator generates light and each optical fiber transmits that light and (ii) each optical fiber is positioned within the sheath;
- (B) a beam splitter that is configured to direct the light transmitted through a predetermined optical fiber of said pairing(s); and
- (C) a detector that is configured to measure intensity of light backscattered from the blood vessel, such that the position of one optical fiber is indicated relative to the blood vessel.

18. (New) The device of claim 17, wherein (a) the light-conveying element consists of one pairing of generator and optical fiber and (b) said generator is configured to generate a welding laser and a monitoring light, respectively.

19. (New) The device of claim 17, wherein: (a) the light-conveying element consists of (i) a first generator paired with a first fiber and (ii) a second generator paired with a second fiber; (b) the first generator is connected to the detector and generates a monitoring light; (c) the first fiber transmits the monitoring light; (d) the second generator generates a welding laser; and (e) the second fiber transmits the welding laser.

20. (New) A method for closing a hole formed in a blood vessel by a sheath holding a catheter that was inserted into the blood vessel, comprising:

- (A) introducing one or two optical fibers into the sheath; then
- (B) transmitting a monitoring light through an optical fiber in the sheath, from the proximal end of said fiber to its distal end, and onto the blood vessel; then

(C) detecting monitoring light that is backscattered from the blood vessel so as to ascertain the position of the optical fiber relative to the blood vessel; and, when said position is determined to be such that the distal end of the optical fiber is within the hole, then

(D) generating a welding laser and transmitting it through an optical fiber in the sheath to impinge on the blood vessel,
with the proviso that, when one optical fiber is employed, then that optical fiber transmits the monitoring light and the welding laser, respectively, and that, when two optical fibers are employed, then one optical fiber transmits the monitoring light and the other optical fiber transmits the welding laser.

21. (New) The method of claim 20, wherein one optical fiber is employed.

22. (New) The method of claim 21, wherein two optical fibers are employed.